

Sheet 1 of 1

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: December 21, 2004

ATTY DOCKET NO.  
2000\_1130SERIAL NO.  
09/662,895APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
September 15, 2000GROUP  
2634

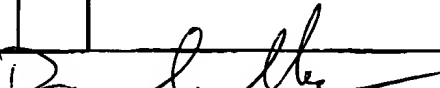
## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
DH	AJ	3-48587	3-1-91	Japan	/	/	abstract
	AK						
	AL						
	AM						
	AN						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

DH	AO	Masafumi SAITO et al., "Bit Error Rate Characteristics of OFDM in Multipath Environment", 1991
DH	AP	Ryutaro OHMOTO et al., " $\pi/4$ -shift QPSK Subcarrier Transmission", 1991
	AQ	
EXAMINER		
	DATE CONSIDERED	06/29/05

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: March 23, 2005

ATTY DOCKET NO.  
2000\_1130SERIAL NO.  
09/662,695APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
September 15, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
1 DH	AA	5,218,622	6-8-93	Fazel et al.	_____	_____	_____
	AB	5,377,051	12-27-94	Lane et al.	_____	_____	_____
	AC	5,400,084	3-21-95	Scarpa	_____	_____	_____
	AD	5,561,468	10-1-96	Bryan et al.	_____	_____	_____
	AE	5,576,902	11-19-96	Lane et al.	_____	_____	_____
	AF	5,598,220	1-97	Citta et al.	_____	_____	_____
DH	AG	5,802,241	9-1-98	Oshima	_____	_____	_____
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	AI						

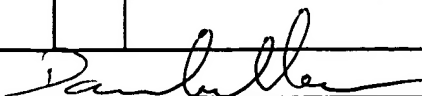
## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AJ							
	AK							
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## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	
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EXAMINER





DATE CONSIDERED

06/29/05

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)  Date Submitted to PTO: December 19, 2005				ATTY DOCKET NO. 2000_1130		SERIAL NO. 09/662,695	
				APPLICANT Mitsuaki OSHIMA et al.			
				FILING DATE September 15, 2000		GROUP 2634	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	4,597,090	6-24-86	Fomey, Jr.			
/DH/	AB	4,077,021	2-28-78	Csajka et al.			
<del>/DH/</del>	<del>AC</del>	<del>2005/0084750</del>	<del>4-21-05</del>	<del>Wang et al.</del>			
<del>/DH/</del>	<del>AD</del>	<del>2005/0050633</del>	<del>3-17-05</del>	<del>Epstein et al.</del>			
<del>/DH/</del>	<del>AE</del>	<del>2005/0022922</del>					
/DH/	AF	4,918,437	4-17-90	Jasinski et al.			
/DH/	AG	5,023,889	6-11-91	Divsalar et al.			
/DH/	AH	5,063,452	11-5-91	Higurashi			
/DH/	AI	5,124,852	6-23-92	Suwa et al.			
/DH/	AJ	5,136,380	8-4-92	Cho			
/DH/	AK	5,146,335	9-8-92	Kim et al.			
/DH/	AL	5,148,422	9-15-92	Sako et al.			
/DH/	AM	5,218,436	6-8-93	Sugiyama et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO
/DH/	AN	2627574	7-21-04	CN			
/DH/	AO	1529838	5-11-05	EP			abstract
/DH/	AP	1499725	5-26-04	CN			only abstract
/DH/	AQ	2004-159207	6-3-04	JP			corresponds to AP
/DH/	AR	1528854	5-11-05	EP			only abstract
/DH/	AS	52118	12-16-02	UA			only abstract
/DH/	AT	1569334	1-26-05	CN			
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
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EXAMINER				DATE CONSIDERED			
/Dac Ha/				03/05/2007			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>  Date Submitted to PTO: April 12, 2005		ATTY DOCKET NO. 2000_1130		SERIAL NO. 09/662,695			
		APPLICANT Mitsuaki OSHIMA et al.					
		FILING DATE September 15, 2000		GROUP 2634			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ						
	AK						
	AL						
	AM						
	AN						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
DH	AO	J. A. C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, Vol. 28, May 1990, pages 5-8 and 11-14					
DH	AP	B. Hirosaki, "An Orthogonally Multiplexed QAM System Using the Discrete Fourier Transform", IEEE Transactions on Communications, Vol. Com-29, No. 7, July 1981, pages 982-989					
DH	AQ	L. J. Cimini, Jr., "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing", IEEE Transactions on Communications, Vol. Com-33, No. 7, July 1985, pages 665-675 and Annex					
EXAMINER 				DATE CONSIDERED 06/29/05			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

ATTY DOCKET NO.  
2000\_1130SERIAL NO.  
09/662,695U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
September 15, 2000GROUP  
2634

Date Submitted to PTO: March 23, 2005

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DA	AA	3,824,548	7-16-74	Sullivan et al.			
	AB	3,959,726	5-25-76	Hinoshita et al.			
	AC	4,303,939	12-1-81	Stephens et al.			
	AD	4,303,941	12-1-81	Marti et al.			
	AE	4,309,726	1-5-82	Tanaka et al.			
	AF	4,535,352	8-85	Haskell			
	AG	4,564,858	1-14-86	Resch			
	AH	4,581,639	4-8-86	Judge			
	AI	4,769,819	9-6-88	Matsutani et al.			
	AJ	4,794,447	12-27-88	Tsinberg			
	AK	4,800,426	1-24-89	Glenn			
	AL	4,817,192	3-28-89	Phillips et al.			
	AM	5,007,088	4-9-91	Ooi et al.			
	AN	5,029,003	7-91	Jonnalagadda			
	AO	5,134,464	7-28-92	Basile et al.			
	AP	5,181,112	1-19-93	Citta et al.			
DA	AQ	5,214,656	5-25-93	Chung et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
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## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

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DATE CONSIDERED

06/29/05

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: March 6, 2007

ATTY DOCKET NO.  
2000\_1130SERIAL NO.  
09/662,695APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
September 15, 2000

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	5,210,770	5-11-93	Rice			
/DH/	AB	5,519,730	5-21-96	Jasper et al.			
	AC						
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	AE						
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/DH/	AJ	3-13145	1-22-91	Japan			abstract	
/DH/	AK	4-322592	11-12-92	Japan			abstract	
/DH/	AL	63-253738	10-20-88	Japan			abstract	
/DH/	AM	62-502932	11-19-87	Japan			abstract	
/DH/	AN	58-107740	6-27-83	Japan			abstract	

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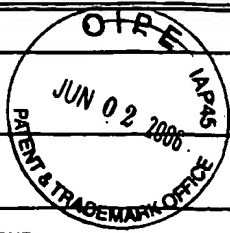
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03/19/2007

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Sheet 1 of 1		<b>INFORMATION DISCLOSURE STATEMENT</b>					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			ATTY DOCKET NO. 2000_1130		SERIAL NO. 09/662,695		
Date Submitted to PTO: June 2, 2006			APPLICANT Mitsuaki OSHIMA et al.			FILING DATE September 15, 2000	
			GROUP 2634				
<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	4,003,002	1-11-77	Snijders et al.			
/DH/	AB	4,053,713	10-11-77	Nitadori			
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<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
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				03/05/2007			

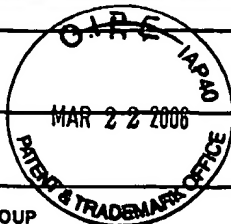
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FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: March 22, 2006

ATTY DOCKET NO.  
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09/662,695APPLICANT  
Mitsuaki OSHIMA et al.FILING DATE  
September 15, 2000GROUP  
2634

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/DH/	AA	4,267,592	5-12-81	Craiglow			
/DH/	AB	4,601,045	7-15-86	Lubarsky			
/DH/	AC	4,912,706	3-27-90	Eisenberg et al.			
/DH/	AD	4,914,655	4-3-90	Johannes et al.			
/DH/	AE	5,018,198	5-21-91	Takahashi			
	AF						
	AG						
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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AJ							
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	AN							

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03/05/2007